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09/461,211	12/15/1999	Hiroyasu Koizumi	018889/0156	3525

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 09/09/2003

28

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/461,211

Applicant(s)

Koizumi et al.

Examiner

Atkinson

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/24/03
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-2 and 4-22 is/are pending in the application.
- 4a) Of the above, claim(s) 9, 12, 14 and 19-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-8, 10-11, 13, 15-18 and 21-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/15/90 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 3743

***Response to Amendment***

Applicant's arguments filed 6/24/2003 have been fully considered but they are not persuasive.

Claims 9, 12, 14 and 19-20 remain withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the width of the widest portion of the insertion section being smaller than the width of the reinforcement hole and the width of the narrowest portion of the insertion section being larger than the length of the linear section must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by

Art Unit: 3743

the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the specification fails to teach the device of claim 22.

***Claim Rejections - 35 USC § 112***

Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 22, the following limitations: 1) the width of the widest portion of the insertion section being smaller than the width of the reinforcement hole and 2) the width of the

Art Unit: 3743

narrowest portion of the insertion section being larger than the length of the linear section are not contained within the originally filed specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1-2, 4, 13, 15, 18 and 21-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Iokawa et al. in view of Kato ('198). The patent of Iokawa et al. in figures 1-7 discloses all the claimed features of the invention with the exception of the reinforcement hole having arch sections in a thickness direction and claimed dimensions.

The patent of Kato ('198) in Figures 1-2 and 5 discloses that it is known to have the

Art Unit: 3743

reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member as disclosed in Kato ('198). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in ~~Iokawa et al.~~ <sup>Ikagawa</sup> which do not solve any stated problem or produce any new and/or unexpected result.

Claims 5-8, 10-11 and 16-17 are rejected under 35 U.S.C. § 103 as being unpatentable over Iokawa et al. in view of Kato ('198) as applied to claims 1-2, 4, 13, 15, 18 and 21-22 above, and further in view of Hooton ('751) and Matsuura ('819). The patent of Iokawa et al. discloses all the claimed features of the invention with the exception of the claimed dimensions.

The document of Hooton ('751) in figure 3 discloses that it is known to have the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. as modified, the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger as disclosed in Hooton ('751).

The patent of Matsuura ('819) in figure 20 discloses that it is known to have the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger. It would have been obvious at the time the invention was made

Art Unit: 3743

to a person having ordinary skill in the art to employ in Iokawa et al. as modified, the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger as disclosed in Matsuura ('819). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Iokawa which do not solve any stated problem or produce any new and/or unexpected result.

### ***Response to Arguments***

Applicant's concerns directed toward Iokawa et al. are not found persuasive. Iokawa et al., in figures 1 and 6, show the reinforcement (14) hole (top most hole) having the same dimensions/cross-section as the tubes (15). Applicant's concerns directed toward the reinforcement (14) hole in Iokawa et al. being smaller than the tube (15) hole is incorrect since applicant appears to rely on the horizontal line "II-II" in Fig. 1 of Iokawa et al. as illustrating the reinforcement (14) hole. This is an incorrect read of the reinforcement (14) hole.

Applicant's concerns directed toward the insertion section of Iokawa et al. are not found persuasive. Iokawa et al., in at least figures 2 and 4 and in column 1, lines 66-67, discloses the insertion section being smaller than the reinforcement (14) hole. If the insertion section were larger than the reinforcement (14) hole, the insertion section could not fit into the reinforcement (14) hole. Clearly, as illustrated in figures 2 and 4 in Iokawa et al., the insertion section is fit within the reinforcement (14) hole.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the

Art Unit: 3743

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member as disclosed in Kato ('198) and it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. as modified, the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger as disclosed in Matsuura ('819).

Regarding applicant's concerns directed toward "Appendix A", no "Appendix A" has been found with the attached amendment.

Regarding claim 22, the following limitations: 1) the width of the widest portion of the insertion section being smaller than the width of the reinforcement hole and 2) the width of the



Art Unit: 3743

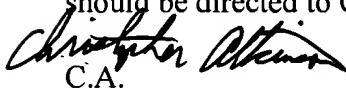
narrowest portion of the insertion section being larger than the length of the linear section are not contained within the originally filed specification.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

  
C.A.

September 7, 2003

CHRISTOPHER ATKINSON  
PRIMARY EXAMINER